

Discovering Algebra: An Investigative Approach

Correlations available at www.keypress.com/kentucky. Discovering Algebra will help you reach more of your students with meaningful activities that help them connect abstract mathematical concepts to concrete experiences. Discovering Algebra connects mathematics to science, the environment, social science, the arts and scenarios close to students' own lives. You can be certain that your students will develop mathematical skills in a meaningful and retrievable way, helping them meet state learning goals and feel more confident in their mathematical knowledge.

Teacher Edition
Essential Items
Ancillary Items
Free with Purchase items

ISBN**9781559537636**Contract Price

\$62.95

Grade

8, 9, 10

TYPE

P1

Copyright

2007

AuthorMurdock, Kamischke,
KamischkeEdition

2nd

Content

270231-Algebra 1

Readability

Lexile 1100

Accessibility

Nimas

ResearchContact Alicia Hill at
800-995-6284 ext. 205

Evaluation Tool for Basal Instructional Materials
Mathematics (2009 – 2015)

Provided by the Publisher	ISBN 9781559537636		Publisher - Key Curriculum Press		Provided by the Publisher
	Discovering Algebra: An Investigative Approach				
	Type - P1	Author - Murdock, Kamischke, Kamischke			
	Copyright - 2007	Edition - 2nd	Readability - Lexile 1100		
	Course - 270232-Algebra 1		Grade(s) - 8, 9, 10		
Teacher Edition ISBN if applicable 9781559537858					

Overall Recommendation: Overall Strengths, Weaknesses, Comments: Click here to enter text.	Recommended as BASAL if this box is not checked, the evaluators have chosen NOT recommend as basal
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NIMAC Accessibility N
 Ancillary No
 Free with Purchase Yes
 Research Yes Contact Alicia Hill at 800-995-6284 ext. 205

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CRITERIA

This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations Moderate Evidence	
Text is designed to be used in an elective course outside the Program of Studies	
1) Includes the 5 Big Ideas of mathematics to the following extent:	
a) Number Properties and Operations	Moderate Evidence
b) Measurement	Moderate Evidence
c) Geometry	Moderate Evidence
d) Data Analysis and Probability	Strong Evidence
e) Algebraic Thinking	Moderate Evidence
2) Addresses content-specific enduring understandings from the related Program of Studies standards.	
Moderate Evidence	
3) Addresses content-specific skills and concepts from the related Program of Studies standards.	
Moderate Evidence	

4) Content addressed is current, relevant and non-trivial	Moderate Evidence
5) Provides opportunities for critical thinking/reasoning	Strong Evidence
6) Strengths, Weaknesses, Comments: <ul style="list-style-type: none"> • Specific strengths-which areas/concepts are covered exceptionally well? • Specific weaknesses-which areas/concepts would likely require supplementing? <p>Strengths: Good data analysis and probability sections</p> <p>Weaknesses: Lacks correlation to Kentucky standards Lacks examples</p>	

B. Functionality & Suitability	Moderate Evidence
1) Suitability	Moderate Evidence
<ul style="list-style-type: none"> • Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind. 	
2) Content quality	Moderate Evidence
<ul style="list-style-type: none"> • Free from factual errors • Content is presented conceptually when possible—more than a mere collection of facts • Content included accurately represents the knowledge base of the discipline • Theories/scientific models contained represent a broad consensus of the scientific community • Interconnections among mathematical topics 	
3) Connections to Literacy	Moderate Evidence
<ul style="list-style-type: none"> • Employs a variety of reading levels and is grade/level appropriate • Use of multiple representations-concrete, visual/spatial, graphs, charts, etc. • Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles. • Student text provides opportunity to integrate reading and writing • Uses vocabulary that is age and content appropriate • Focuses on critical vocabulary vs. extensive lists • Identifies key vocabulary through definitions in both text and glossary • The text is engaging and facilitates learning • Embedded activities enhance the understanding of the text <p><i>Note: may apply to either student or teacher editions</i></p>	
4) Connections to Technology	Strong Evidence
<ul style="list-style-type: none"> • Integrates technology and reflects the impact of technological advances • Uses technology in the collection and/or manipulation of authentic data • Embeds web links as a mathematics resource. 	
5) Support for Diverse Learners	Little or No Evidence

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Mathematics (2009 – 2015)

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties

Note: may apply to either student or teacher editions

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Strengths:

Activities embedded in text

Weaknesses:

Limited ESL resources(provide some Spanish but not a glossary)

Lacks remediation materials

C. Supports Inquiry and Skill Development	Strong Evidence
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1) Promotes Inquiry, research and Application of Learning

Strong Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions, formulating authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

Note: may apply to either teacher or student edition

2) Skill Development

Moderate Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Strengths:

Critical thinking and justification skills are embedded in text

Students learn by doing

Weaknesses:

Lacks opening examples

D. Supports Best Practices of Teaching and Learning

Moderate Evidence

1) Engages Students

Moderate Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated

Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction

Moderate Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Strengths:

Wide variety of activities

Weaknesses:

Assessments do not identify DOK levels

Activities lack modification strategies

E. Has an Organization/ Format that Supports Learning and Teaching

Moderate Evidence

1) Organizational Quality

Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources

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- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

Choose an item.

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Strengths:

Book is visually pleasing

Good real life problems

Weaknesses:

Text will be intimidating for poor readers

Glossary is only available in English

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

Little or No Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

No ancillary or gratis materials
